



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,157	01/19/2006	Wittich Kaule	2732-173	7236
6449 7590 04/17/2009 ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005				
EXAMINER CALLAWAY, JADE R				
ART UNIT 2872		PAPER NUMBER		
NOTIFICATION DATE 04/17/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

# Office Action Summary

**Application No.**

10/565,157

**Applicant(s)**

KAULE ET AL.

**Examiner**

JADE R. CALLAWAY

**Art Unit**

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 March 2009.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 9-12, 39, 48, 59, 62, 63 and 76 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-5, 9-12, 39, 48, 59, 62, 63 and 76 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 19 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/5/09 has been entered.

### ***Response to Amendment***

2. The amendments to the claims, in the submission dated 3/5/09, are acknowledged and accepted.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-5, 9-12, 39, 48, 59, 62, 63 and 76 have been considered but are moot in view of the new ground(s) of rejection.

### ***Specification***

4. The title of the invention is objected to because the title is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-5, 9-12, 39, 48, 59, 62, 63, 76 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 is problematic because the claim recites the limitation "the subarea" in lines 6 and 8; and "a recognizable information, wherein the information" in lines 7-8. There is insufficient antecedent basis for these limitations in the claim.

8. Claim 1 is problematic because the claim recites the limitation "wherein the area has subareas, at least one of said subareas being free of any diffraction structures, the subareas do not take part in the reconstruction of the diffractive image, and which represent a recognizable information, wherein the information represented by the subareas is recognizable substantially only under the specific viewing conditions." It is unclear which subareas provide the various features of the claim. For purposes of examination the above limitation will be interpreted to mean: "wherein the area has subareas, at least one of the said subareas being free of any diffraction structures, the subareas free of any diffraction structures do not take part in the reconstruction of the diffractive image, and which represent a recognizable information, where in the information represented by the subareas having a diffraction structure, is recognizable substantially only under the specific viewing conditions."

9. Claims 2-5, 59 and 76 are dependent on claim 1 and at least inherit the same deficiencies as claim 1.

10. Claim 3 is problematic because the claim recites the limitation: " the subareas have no diffraction structure." It is unclear how all of the subareas can not have a

diffraction structure if information represented by the subareas is recognizable substantially only under specific viewing conditions. For purposes of examination the above limitation will be interpreted to mean: "at least one of the subareas does not have a diffraction structure."

11. Claim 9 is problematic because the claim recites the limitation "the subarea" in lines 4-8; and "a recognizable information, wherein the information" in lines 7-8. There is insufficient antecedent basis for these limitations in the claim.

12. Claim 9 is problematic because the claim recites the limitation "wherein the area has subareas, at least one of said subareas is produced during the embossing process with the embossing die already providing the at least one of said subareas being free of any diffraction structures, the subareas do not take part in the reconstruction of the diffractive image, and which represent a recognizable information, wherein the information represented by the subareas is recognizable under viewing conditions differing from the specific viewing conditions of the diffractive image." It is unclear which subareas provide the various features of the claim. For purposes of examination the above limitation will be interpreted to mean: "wherein the area has subareas, at least one of said subareas has a diffraction structure and is produced during the embossing process with the embossing die already providing the at least one of said subareas being free of any diffraction structures, the subareas free of any diffraction structures do not take part in the reconstruction of at least one area of the diffractive image, and which represent a recognizable information, wherein the information represented by the subareas produced during the embossing process having a diffraction structure is

recognizable under viewing conditions differing from the specific viewing conditions of at least one area of the diffractive image."

13. Claims 10-12, and 62-63 are dependent on claim 9 and inherit at least the same deficiencies as claim 9.

14. Claim 39 is problematic because the claim recites the limitation "the subarea" in lines 6-14 and "a recognizable information, wherein the information" in lines 11-13. There is insufficient antecedent basis for this limitation in the claim.

15. Claim 39 is problematic because the claim recites the limitation: "producing at least one subarea of the area during the embossing process with the embossing die already providing the at least one subarea being free of any diffraction structures, such that the at least one subarea of the area does not take part in the reconstruction of the diffractive image, represents a recognizable information and is integrated in the area with the diffraction structure such that the information represented by the at least one subareas is recognizable mainly only under the specific viewing conditions of the diffractive image." It is unclear which subareas provide the various features of the claim. For purposes of examination the above limitation will be interpreted to mean: "producing at least one subarea of the area having a diffraction structure during the embossing process with the embossing die already providing the at least one subarea being free of any diffraction structures, such that the at least one subarea of the area does not take part in the reconstruction of the diffractive image, represents a recognizable information and is integrated in the area with the diffraction structure such that the information represented by the at least one subareas of the area with a

diffractive structure is recognizable mainly only under the specific viewing conditions of the diffractive image."

16. Claim 48 is problematic because the claim recites the limitation "the subarea" in lines 6-14; and "a recognizable information, wherein the information" in lines 10-13. There is insufficient antecedent basis for this limitation in the claim.

17. Claim 48 is problematic because the claim recites the limitation: "producing at least one subarea of the area during the embossing process with the embossing die already providing the at least one subarea being free of any diffraction structures, such that the at least one subarea of the area does not take part in the reconstruction of the diffractive image, represent a recognizable information and is integrated in the area with the diffraction structure such that the information represented by the at least one subarea is recognizable under viewing conditions differing from the specific viewing conditions of the diffractive image." It is unclear which subareas provide the various features of the claim. For purposes of examination the above limitation will be interpreted to mean: "producing at least one subarea of the area having a diffraction structure during the embossing process with the embossing die already providing the at least one subarea being free of any diffraction structures, such that the at least one subarea of the area free of any diffraction structures does not take part in the reconstruction of the diffractive image, represents a recognizable information and is integrated in the area with the diffraction structure such that the information represented by the at least one subarea having a diffraction structure is recognizable under viewing conditions differing from the specific viewing conditions of the diffractive image."

***Claim Rejections - 35 USC § 102***

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

19. Claims 1-3, 9, 39, 48 and 76, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Schaefer (6,006,415).

Consider claims 1 and 76, Schaefer et al. disclose (e.g. figures 1-6) a security element, which has at least one area (30, can) with a diffraction structure (holographic image) embossed during an embossing process with an embossing die, which under specific viewing conditions reconstructs a diffractive image (holographic image), wherein the area has subareas, at least one of the subareas being produced during the embossing process with the embossing die already providing the at least one of said subareas being free of any diffraction structures (non-embossed surface area), the subareas free of any diffraction structures do not take part in the reconstruction of the diffractive image, and which represent a recognizable information (cans can be painted with recognizable information), where in the information (holographic image) represented by the subareas having a diffraction structure, is recognizable substantially only under the specific viewing conditions [col. 7, line 6 to col. 9, line 36].

The preceding claim is a product-by-process claim and even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its



method of production. If the product in the product-by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process; see **In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)**.

Consider claim 2, Schaefer et al. teach (e.g. figures 1-6) a security element characterized in that the area (30, can) has a first reflection layer (aluminum layer), which supports the reconstruction of the diffractive image (holographic image) [col. 7, line 6 to col. 9, line 36].

Consider claim 3, Schaefer et al. teach (e.g. figures 1-6) a security element characterized in that the at least one subarea does not have a diffraction structure, and that the first reflection layer is disposed in both the area of the diffraction structure and the area of the subareas (both areas are made of the aluminum layer) [col. 7, line 6 to col. 9, line 36].

Consider claim 9, Schaefer et al. teach (e.g. figures 1-6) a security element, which has at least one area with a diffraction structure (holographic image) embossed during an embossing process with an embossing die, which under specific viewing conditions reconstructs a diffractive image (holographic image), wherein the area has subareas, at least one of the subareas is produced during the embossing process with the embossing die already providing the at least one of said subareas being free of any diffraction structures (non-embossed surface area), the subareas free of any diffraction structures do not take part in the reconstruction of the diffractive image, and which represent a recognizable information (cans can be painted with recognizable

information), wherein the information (holographic image) represented by the subareas having a diffraction structure is recognizable under viewing conditions differing from the specific viewing conditions of the diffractive image (two holographic images can be embossed into the can) [col. 7 line 6 to col. 9, line 36].

The preceding claim is a product-by-process claim and even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process; see **In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)**.

Consider claim 39, Schaefer et al. teach (e.g. figures 1-6) a method for producing a security element, comprising: embossing during an embossing process with an embossing die (14, print roll) at least one area with a diffractive structure (holographic image), which under specific viewing conditions reconstructs a diffractive image, producing at least one subarea of the area having a diffractive structure during the embossing process with the embossing die already providing the at least one subarea being free of any diffraction structures (non-embossed surface area), does not take part in the reconstruction of the diffractive image, represents a recognizable information (via decorative coating), and is integrated in the area with the diffraction structure such that the information represented by the at least one subarea having a diffractive structure is

recognizable mainly only under the specific viewing conditions of the diffractive image [col. 7, line 6 to col. 9, line 36].

Consider claim 48, Schaefer et al. teach (e.g. figures 1-6) a method for producing a security element, comprising embossing during an embossing process with an embossing die (14, print roll) at least one area with a diffraction structure (holographic image), which under specific viewing conditions reconstructs a diffractive image, producing at least one subareas of the area having a diffractive structure during the embossing process with the embossing die already providing the at least one subarea being free of any diffraction structures (non-embossed surface area), does not take part in the reconstruction of the diffractive image, represents a recognizable information (via decorative coating), and is integrated in the area with the diffraction structure such that the information represented by the at least one subarea having a diffractive structure is recognizable under viewing conditions differing from the specific viewing conditions of the diffractive image (two holographic images can be embossed into the can) [col. 7 line 6 to col. 9, line 36].

***Claim Rejections - 35 USC § 103***

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 4-5, 10-12, 59, 62-63, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al. (6,006,415) in view of Ishimoto et al. (2002/0191234).

Consider claim 4 and 10, Schaefer et al. disclose a security element wherein the subareas are formed by gaps in the first reflection layer (the holographic image is embossed in the aluminum layer) [col. 7, line 6 to col. 9, line 36]. However, Schaefer et al. do not disclose a security element characterized in that the area has a transparent plastic layer, in which the diffraction structure is present in the form of a relief structure, that the first reflection layer is disposed on the surface of the plastic layer which is provided with the diffraction structure, and that the opposite surface of the plastic layer has a second reflection layer. Schaefer et al. and Ishimoto et al. are related as holographic devices. Ishimoto et al. teaches (e.g. figure 2b) a security element characterized in that the area has a transparent plastic layer (17, pressure sensitive adhesive layer), in which the diffraction structure is present in the form of a relief structure (12, relief layer), that the first reflection layer (materials of layer 11) is disposed on the surface of the plastic layer which is provided with the diffraction structure (11, volume hologram), and that the opposite surface of the plastic layer has a second reflection layer (metal films of 12) [0022-0024, 0029, 0038, 0042]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the device of Schaefer et al., as taught by Ishimoto et al., in order to protect the holograms to increase durability.

Consider claim 5, the modified Schaefer et al. reference discloses (e.g. figures 2b of Ishimoto et al.) a security element characterized in that the first and second reflection layers are made of materials having substantially the same reflecting properties (metallic materials, e.g. aluminum can be used for the hologram layers) [col. 7, line 6 to col. 9, line 36 of Schaefer et al. and 0029, 0038 of Ishimoto et al.].

Consider claims 11 and 62, the modified Schaefer et al. reference discloses a security element characterized in that the opposite surface of the plastic layer has a second reflection layer (metal films of 12, of Ishimoto et al.), wherein the first and second reflection layers are made of differently-colored materials (Note: the holograms can be colored) [0022-0024 of Ishimoto et al.].

Consider claim 12, the modified Schaefer et al. reference discloses (e.g. figure 2b of Ishimoto et al.) a security element characterized in that the area is disposed on a transparent carrier (18, protective layer), so that the information represented by the subareas is recognizable in transmitted light [0022-0024 of Ishimoto et al.].

Consider claim 59 and 63, the modified Schaefer et al. reference discloses a security element wherein the materials are substantially the same aluminum material [col. 7 line 6 to col. 9, line 36 of Schaefer et al. and 0029, 0038 of Ishimoto et al.].

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JADE R. CALLAWAY whose telephone number is (571)272-8199. The examiner can normally be reached on Monday to Friday 7:00 am - 4:30 pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRC  
/JADE R. CALLAWAY/  
Examiner, Art Unit 2872

/Stephone B. Allen/  
Supervisory Patent Examiner  
Art Unit 2872